WHAT IS CLAIMED IS:

1. A voice over Internet protocol call control apparatus in a voice over Internet protocol private branch exchange, the apparatus comprising:

a service class decision unit for receiving a voice over Internet protocol call service request from a subscriber, deciding a service class for indicating priority of a voice over Internet protocol call service, and outputting the service class;

a service level decision unit for measuring band width usage of the voice over Internet protocol trunk, deciding a service level according to the band width usage so as to determine which service classes can use the voice over Internet protocol call service, and outputting the service level; and

a signal processing unit for deciding whether the voice over Internet protocol call with the service class transmitted from the service class decision unit can be serviced in the service level of the voice over Internet protocol trunk transmitted from the service level decision unit, and when the voice over Internet protocol call is serviceable, providing a voice over Internet protocol call service and when the voice over Internet protocol call is not serviceable, providing a voice call service over the public switched telephone network.

2. The apparatus according to claim 1, wherein the service level decision unit accumulates a bandwidth every time a voice over Internet protocol call service is provided, and decides the service level of the voice over Internet protocol trunk according to an occupancy rate of the accumulated bandwidth out of total bandwidth.

3. The apparatus according to claim 1, wherein the service class decision unit decides the class of service by referring to a voice over Internet protocol service class table per subscriber according to a characteristic of the subscriber.

4. The apparatus according to claim 3, wherein the voice over Internet protocol service class table per subscriber reflects characteristics of each department in a company.

5. The apparatus according to claim 1, wherein the service class decision unit decides the class of service by referring to a voice over Internet protocol service class table per call type according to a type of the call.

6. The apparatus according to claim 5, wherein the voice over Internet protocol service class table per call type reflects characteristics of each call.

7. The apparatus according to claim 1, wherein the service class decision unit decides the class of service by referring to both a voice over Internet protocol service class table per subscriber according to a characteristic of the subscriber and a voice over Internet protocol service class table per call type according to a characteristic of the call requested.

8. The apparatus according to claim 7, wherein the voice over Internet protocol service class

table per subscriber is prepared based on characteristics of each department in a company, and the voice over Internet protocol service class table per call type is prepared based on characteristics of each call.

9. The apparatus according to claim 1, wherein the service class decision unit decides the class of service by referring to cost for a voice over Internet protocol service of the call.

10. The apparatus according to claim 1, further comprising:

a central office matching unit for matching a public switched telephone network and the private branch exchange;

a voice over Internet protocol gateway for performing a protocol matching process with respect to an outgoing call from the private branch exchange, and providing a voice call conforming to voice over Internet protocol; and

a gateway matching unit for matching the voice over Internet protocol gateway and the private branch exchange.

11. A voice over Internet protocol call control method in a private branch exchange, the method comprising the steps of:

in the private branch exchange, when a subscriber sends a voice over Internet protocol call service request, deciding a voice over Internet protocol service class;

deciding whether the voice over Internet protocol call service can be provided in a voice over

Internet protocol trunk service level corresponding to the voice over Internet protocol service class;

when the voice over Internet protocol call service cannot be provided, providing a voice call service through a public switched telephone network, and when the voice over Internet protocol call service can be provided, looking up an available voice over Internet protocol trunk port and providing the voice over Internet protocol call service through the voice over Internet protocol trunk; and

when providing the voice over Internet protocol call service, changing the voice over Internet protocol trunk service level.

12. The method according to claim 11, wherein the private branch exchange decides the service class by referring to a voice over Internet protocol service class table per subscriber according to a characteristics of the subscriber.

13. The method according to claim 11, wherein the private branch exchange decides the service class by referring to a voice over Internet protocol service class table per call type according to a characteristic of the call.

14. The method according to claim 11, wherein the private branch exchange decides the service class by referring to both a voice over Internet protocol service class table per subscriber according to a characteristics of the subscriber and a voice over Internet protocol service class table per call type according to a characteristic of the call.

15. The method according to claim 11, wherein the voice over Internet protocol trunk service level is decided based on an occupancy rate of a bandwidth out of a total bandwidth, the bandwidth being accumulated every time a voice over Internet protocol call service is provided.

16. An apparatus comprising:

a first unit receiving a voice over Internet protocol call service request from a subscriber, deciding a service class, and outputting the service class;

a second unit measuring a service level of a voice over Internet protocol trunk and outputting the service level;

a third unit matching a public switched telephone network and a private branch exchange;

a fourth unit performing a protocol matching process with respect to an outgoing call from the private branch exchange, and providing a voice call conforming to voice over Internet protocol;

a fifth unit matching the fourth unit and the private branch exchange; and

a sixth unit deciding whether the voice over Internet protocol call with the service class transmitted from the first unit can be serviced or established in a service level of the voice over Internet protocol trunk decided in the service level transmitted from the second unit, and when the voice over Internet protocol call is serviceable, providing a voice over Internet protocol call service through the fifth unit and the fourth unit, and when the voice over Internet protocol call is not serviceable, providing a voice call service over the public switched telephone network via the third unit.

17. The apparatus according to claim 16, wherein the second unit accumulates a bandwidth every time a voice over Internet protocol call service is provided, and decides the service level of the voice over Internet protocol trunk according to an occupancy rate of the accumulated bandwidth out of a total bandwidth.

18. The apparatus according to claim 16, wherein the first unit decides the class of service by referring to a voice over Internet protocol service class table per subscriber according to a characteristic of the subscriber.

19. The apparatus according to claim 18, wherein the voice over Internet protocol service class table per subscriber reflects characteristics of each group of subscribers from a plurality of groups of subscribers.

20. The apparatus according to claim 16, wherein the first unit decides the class of service by referring to a voice over Internet protocol service class table per call type according to a type of the call.

21. The apparatus according to claim 20, wherein the voice over Internet protocol service class table per call type reflects characteristics of each call.

22. The apparatus according to claim 16, wherein the first unit decides the class of service by referring to both a voice over Internet protocol service class table per subscriber according to a characteristic of the subscriber and a voice over Internet protocol service class table per call type according to a characteristic of the call requested.

23. The apparatus according to claim 22, wherein the voice over Internet protocol service class table per subscriber is prepared based on characteristics of each sub-group in a group comprising a plurality of the sub-groups, and the voice over Internet protocol service class table per call type is prepared based on characteristics of each call.

24. A method, comprising:

determining a service class, comprising of:

receiving a voice over Internet protocol call service request from a subscriber by way of a public branch exchange;

determining a voice over Internet protocol service class by referring to a voice over Internet protocol service class table per subscriber; and

determining the voice over Internet protocol service class for the call referring to the voice over Internet protocol service class table per call type when the voice over Internet protocol service can be provided in a voice over Internet protocol trunk service level corresponding to the voice over Internet protocol service class of the subscriber;

determining whether a voice over Internet protocol service can be provided in the service

level, comprising of:

determining whether the voice over Internet protocol service can be provided in the voice over Internet protocol trunk service level corresponding to the voice over Internet protocol service class of the subscriber; and

determining whether the voice over Internet protocol call service can be provided in a voice over Internet protocol trunk service level corresponding to the voice over Internet protocol service class of the call; and

providing the voice over Internet protocol service, comprising of:

looking up an available voice over Internet protocol trunk port when the voice over Internet protocol call service can be provided in the voice over Internet protocol trunk service level corresponding to the voice over Internet protocol service class of the call;

providing the voice over Internet protocol call service through the available voice over Internet protocol trunk port; and

providing a voice call service through the public switched telephone network when the voice over Internet protocol service cannot be provided in the voice over Internet protocol trunk service level corresponding to the voice over Internet protocol service class of the call.

25. The method according to claim 24, wherein the voice over Internet protocol trunk service level is decided based on an occupancy rate of a bandwidth out of a total bandwidth, the bandwidth being accumulated every time a voice over Internet protocol call service is provided.